

***United States Court of Appeals
for the Second Circuit***



**PETITIONER'S
BRIEF**

74-1691

UNITED STATES COURT OF APPEALS
FOR THE
SECOND CIRCUIT

No. 74-1691

UNIROYAL, INC.,

Petitioner,

v.

ENVIRONMENTAL PROTECTION AGENCY,

Respondent.

On Petition For Review Of Action Of The
Administrator Of The Environmental
Protection Agency

BRIEF FOR PETITIONER

OF COUNSEL:

ARTHUR, DRY & KALISH
1230 Avenue of the Americas
Rockefeller Center
New York, New York 10020

October 21, 1974

IRA J. KRAKOWER
1230 Avenue of the Americas
Rockefeller Center
New York, New York 10020

ATTORNEY FOR PETITIONER

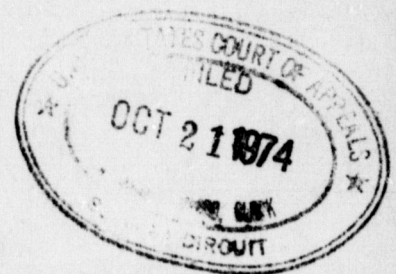


TABLE OF CONTENTS

Authorities Cited	iii
The Parties	1
Issues Presented For Review	2
Statutes and Regulations Involved	2
Jurisdiction	2
STATEMENT OF THE CASE	4
The Federal Water Pollution Control Act	4
The Administrative Proceedings	8
The Challenged Regulations	9
Petitioner's Painesville Plant	11
Product Description	11
Process Description	12
Primary Treatment	14
ARGUMENT	15
I. JUDICIAL REVIEW	15
II. EPA'S ALMOST NON-EXISTENT STUDY OF EMULSION CRUMB NITRILE RUBBER PROCESSES AMOUNTED TO A FAILURE TO CONSIDER FACTORS MANDATED FOR EPA CONSIDERATION UNDER THE ACT	16
III. EPA COMPOUNDED ITS FAILURE TO STUDY CRUMB NITRILE RUBBER WHEN IT DID NOT CONSIDER CRITICAL DIFFERENCES EXISTING BETWEEN THE PAINESVILLE NBR PROCESS AND THE SBR PROCESSES OF THE STUDIED PLANTS	21
A. Filamentous Growth	21

B. Coagulant Mixture	26
IV. THE PAINESVILLE PLANT'S RAW WASTE LOADINGS ARE SIGNIFICANTLY HIGHER THAN THOSE OF ALL THE SYNTHETIC RUBBER PLANTS STUDIED TO WARRANT SEPARATE SUBCATEGORIZATION FOR THAT PLANT ON THE BASIS OF EPA'S OWN METHODOLOGY	27
V. THE 1977 EFFLUENT LIMITATIONS GUIDELINES AND NEW SOURCE STANDARDS AS APPLIED TO PAINESVILLE ARE NOT BASED ON "CURRENTLY AVAILABLE" OR "DEMONSTRATED" TECHNOLOGY	32
VI. EPA DID NOT CONSIDER THE COSTS OF ACHIEVING THE HIGHER LEVELS OF EFFLUENT REDUCTION REQUIRED OF PAINESVILLE UNDER THE 1977 EFFLUENT LIMITATIONS GUIDELINES AND NEW SOURCE STANDARDS	36
CONCLUSION	39
 <u>Addenda</u>	
A. Pertinent Provisions of the Federal Water Pollution Control Act, as amended	A-1
B. Pertinent Parts of the Regulations for the Emulsion Crumb Rubber Subcategory of the Rubber Processing Category	B-1
C. Petition to the Environmental Protection Agency for Review of the Regulation for the Emulsion Crumb Rubber Subcategory of the Rubber Processing Category (August 23, 1974)	C-1
D. <u>E.I. du Pont de Nemours & Company v. Train</u> , 74-1357 (4 Cir. 1974), Pet. Br. at 27-8	D-1

AUTHORITIES CITED

CASES:

<u>American Paper Institute v. Train,</u> Civil Action No. 74-814 (D.D.C. 1974)	3
<u>Citizens To Preserve Overton Park v.</u> <u>Volpe</u> , 401 U.S. 402 (1971)	15
<u>E. I. du Pont de Nemours & Co. v.</u> <u>Train</u> , Fourth Circuit, No. 74-1261	3
<u>E. I. du Pont de Nemours & Co. v.</u> <u>Train</u> , No. 74-1357 (Fourth Cir. 1974)	31
<u>E. I. du Pont de Nemours & Co. v.</u> <u>Train</u> , Civil Action No. 74-57 (W.D. Va. 1974)	3
<u>Firestone Tire & Rubber Company v. Train,</u> Second Circuit, No. 74-1787	2
<u>Hooker Chemicals and Plastics Corporation</u> <u>v. Train</u> , Second Circuit, No. 74-1683	2
<u>Natural Resources Defense Council, Inc. v.</u> <u>Environmental Protection Agency</u> , Second Circuit, No. 74-1258	2
<u>Portland Cement Ass'n v. Ruckelshaus,</u> 486 F. 2d 375 (D.C. Cir. 1973)	16, 25-26
<u>Scenic Hudson Preservation Conference</u> <u>v. Federal Power Commission</u> , 354 F. 2d 608 (2 Cir. 1965), <u>cert. denied sub nom.</u> , <u>Consolidated Edison Co. of New York v.</u> <u>Scenic Hudson Preservation Conference</u> , 384 U.S. 941 (1966)	16
<u>State of Texas v. Environmental Protection</u> <u>Agency</u> , 499 F. 2d 289 (5 Cir. 1974)	16
<u>Udall v. Federal Power Commission,</u> 387 U.S. 428 (1967)	16

STATUTES:

Administrative Procedure Act

§ 10, 5 U.S.C. §§ 701-706	3, 15
§ 4(d), 5 U.S.C. § 553(e)	9

Clean Air Act

§ 111, 42 U.S.C. § 1857c-6	25
----------------------------------	----

Federal Water Pollution Control Act, As Amended

§ 301, 33 U.S.C. § 1311	1-4, 5, 7
§ 304, 33 U.S.C. § 1314	1-2, 5, 16-17, 32, 36
§ 306, 33 U.S.C. § 1316	1-2, 4, 7-8, 16-17, 30, 32, 37
§ 307, 33 U.S.C. § 1317	1-2, 4, 7-8
§ 402, 33 U.S.C. § 1342	2, 4
§ 509, 33 U.S.C. § 1369	2-4, 10, 15

FEDERAL REGISTER NOTICES:

38 Fed. Reg. 21202 (August 6, 1973)	8, 16
38 Fed. Reg. 21203 (August 6, 1973)	17
38 Fed. Reg. 28219 (October 11, 1973)	8,
39 Fed. Reg. 6660 (February 21, 1974)	1-2, 9
39 Fed. Reg. 6661 (February 21, 1974)	25
39 Fed. Reg. 6663-5 (February 21, 1974)	28
39 Fed. Reg. 6666 (February 21, 1974)	11
39 Fed. Reg. 28536 (August 8, 1974)	31

CODE OF FEDERAL REGULATIONS:

40 C.F.R. § 415.220, 39 Fed. Reg. 29536 (August 8, 1974)	31
40 C.F.R. § 428.22, 39 Fed. Reg. 6660 (February 21, 1974)	2-4, 9-10, 21, 35 .

40 C.F.R. § 428.25, 39 Fed. Reg. 6660 (February 21, 1974)	2, 4, 9-11, 35
40 C.F.R. § 428.26, 39 Fed. Reg. 6660 (February 21, 1974)	2, 4, 9-11, 35
40 C.F.R. §§ 428.20 - 428.46, 39 Fed. Reg. 6663-65 (February 21, 1974)	28

OTHER AUTHORITIES CITED

Randall, et. al., <u>Journal of the Water Pollution Control Federation</u> at 401-02 (March 1972)	23
Senate Committee On Public Works, <u>A Legislative History of the Water Pollution Control Act Amendments of 1972</u> , 93d Cong., 1st Sess. (Committee Print, January 1973, Ser. No. 93-1) ..	30, 32, 37

UNITED STATES COURT OF APPEALS
FOR THE
SECOND CIRCUIT

No. 74-1691

UNIROYAL, INC.,
Petitioner,

v.

ENVIRONMENTAL PROTECTION AGENCY,
Respondent.

BRIEF FOR PETITIONER

This is an action to review and set aside regulations establishing effluent limitations guidelines, new source performance standards and new source pretreatment standards for emulsion crumb rubber plants issued on February 21, 1974 (39 Fed. Reg. 6660) by the United States Environmental Protection Agency ("EPA") under Sections 301, 304, 306, and 307 of the Federal Water Pollution Control Act, as amended (the "Act") (33 U.S.C. §§ 1251, et seq.).

The Parties

Petitioner, among other things, manufactures synthetic rubber products at its Painesville, Ohio, plant falling within the emulsion crumb rubber subcategory established by the regulations challenged on review.

The respondent is the United States Environmental Protection Agency.

Issues Presented For Review

1. Has EPA complied with the Act in promulgating effluent limitations guidelines, new source performance standards and new source pretreatment standards applicable to petitioner's Painesville plant?
2. Does the record support the effluent limitations guidelines, new source performance standards and new source pretreatment standards applicable to petitioner's Painesville plant?

Statutes and Regulations Involved

Sections 301, 304, 306, 307, 402 and 509 of the Act (33 U.S.C. §§ 1311, 1314, 1316, 1317, 1342 and 1369) are set out in Addendum A, infra.

The regulations at issue, 40 C.F.R. §§ 428.22, 428.25 and 428.26, 39 Fed. Reg. 6660 (February 21, 1974), are set out in Addendum B, infra.

Jurisdiction

The judicial review section of the Act, Section 509(b), does not expressly provide for judicial review of effluent limitations guidelines promulgated under Section 304(b) of the Act.

It has been asserted in this Court, ^{1/} and in other Courts

^{1/}

(1) Natural Resources Defense Council, Inc. v. Environmental Protection Agency, No. 74-1258; (2) Hooker Chemicals and Plastics Corporation v. Train, No. 74-1683; and (3) Firestone Tire & Rubber Company v. Train, No. 74-1787.

as well, ^{1/} that effluent limitations guidelines under Section 304(b) are reviewable only in the District Court pursuant to the Administrative Procedure Act (5 U.S.C. §§ 701-706). As in those cases, the effluent limitations guidelines at issue here (40 C.F.R. § 428.22) purport to establish final effluent limitations under Section 301(b) of the Act. If such final effluent limitations have been validly promulgated they would, without question, be reviewable in this Court under Section 509(b)(1)(E) of the Act.

Since the jurisdictional question concerning effluent limitations guidelines is already before this Court, petitioner believes that no useful purpose would be served by going over that ground again in this brief. Accordingly, petitioner concedes the jurisdiction of this Court under Section 509(b)(1)(E) of the Act to review the effluent limitations guidelines here involved. Obviously, such concession cannot confer jurisdiction should the Court determine that none exists. On the other hand, if the Court decides that it has jurisdiction over the matter, the concession would clearly be consistent therewith. For these reasons, petitioner believes that the making of such concession is in all respects proper.

^{1/}
(1) E.I. du Pont de Nemours & Co. v. Train, Fourth Circuit, No. 74-1261; (2) E.I. du Pont de Nemours & Co. v. Train, Civil Action No. 74-57 (W.D. Va. 1974); and (3) American Paper Institute v. Train, Civil Action No. 74-814 (D.D.C. 1974).

The jurisdiction of this Court to review new source performance standards and new source pretreatment standards promulgated under Sections 306 and 307 of the Act is clearly conferred by Sections 509(b)(1)(A) and 509(b)(1)(C) of the Act.

STATEMENT OF THE CASE

Petitioner contends that the effluent limitations guidelines (40 C.F.R. § 428.22), new source performance standards (40 C.F.R. § 428.25) and new source pretreatment standards (40 C.F.R. § 428.26) applicable to petitioner's Painesville plant are neither in accordance with the Act nor supported by the record. The practical effect of this is that the Painesville plant cannot achieve the final effluent limitations established by these regulations.

The Federal Water Pollution Control Act

The Federal Water Pollution Control Act, as amended, establishes a comprehensive legislative and administrative program for the identification and control of pollution affecting our Nation's waters.

Section 301(a) of the Act makes the discharge of any pollutant unlawful except as in compliance with the Act. Section 402 of the Act establishes a National Pollutant Discharge Elimination System (NPDES) which provides for the Administrator of EPA (or a State which has been granted authority by him) to issue a permit for the discharge of any pollutant upon the condition that all requirements of the Act applicable to such discharge are met.

An existing plant (other than a publicly owned treatment

works) is required to achieve, by July 1, 1977, "effluent limitations" which require the application of the "best practicable control technology currently available" as defined by the Administrator pursuant to Section 304(b) of the Act (Section 301(b)(1)(A)) and, by July 1, 1983, "effluent limitations" which require the application of the "best available technology economically achievable" as determined by the Administrator pursuant to Section 304(b)(2) of the Act (Section 301(b)(2)(A)).

For the purpose of adopting or revising effluent limitations under the Act for categories and classes of point sources, Section 304(b) requires the Administrator to publish regulations which shall -

"(1)(A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best practicable control technology currently available for classes and categories of point sources (other than publicly owned treatment works); and

"(B) specify factors to be taken into account in determining the control measures and practices to be applicable to point sources (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best practicable control technology currently available to comply with subsection (b)(1) of section 301 of this Act shall include consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, and shall also take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate;

"(2)(A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods, and other alternatives for classes and categories of point sources (other than publicly owned treatment works); and

"(B) specify factors to be taken into account in determining the best measures and practices available to comply with subsection (b)(2) of section 301 of this Act to be applicable to any point source (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate; and

"(3) identify control measures and practices available to eliminate the discharge of pollutants from categories and classes of point sources, taking into account the cost of achieving such elimination of the discharge of pollutants." (emphasis supplied).

Thus, for classes and categories of point sources the Administrator must identify the degree of effluent reduction attainable through the application of two levels of technology: (1) the best practicable technology currently available for 1977 effluent limitations, and (2) the best available technology for 1983 effluent limitations. In assessing these levels of technology the Administrator must consider, among other things, the process employed, control measures available, the engineering aspects of control and the costs of achieving effluent reduction.

A new plant, from the date of initial start-up, is required to meet any applicable "standard of performance" developed pursuant to Section 306 of the Act. A standard of performance is

"a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants." Section 306(a)(1) (emphasis supplied).

In establishing or revising new source performance standards the Administrator

"may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards"

but he

"shall consider the type of process employed (including whether batch or continuous)." Section 306(b)(2) (emphasis supplied).

A plant which discharges its wastes into a publicly owned treatment works is required under Section 301(b) of the Act to meet any applicable pretreatment standard promulgated pursuant to Section 307 of the Act. Such pretreatment standard

"shall be established to prevent the discharge of any pollutant through treatment works . . . which are publicly owned, which pollutant interferes with, passes through, or otherwise is incompatible with such works". Section 307(b)(1).

Under Section 307(c) of the Act, EPA is required to promulgate pretreatment standards for new sources simultaneously with the promulgation of standards of performance for new sources under Section 306 of the Act.

The Administrative Proceedings

On August 6, 1973, EPA gave notice of public review procedures with regard to the adoption of effluent limitations guidelines, and standards of performance and pretreatment standards for new sources, 38 Fed. Reg. 21202, App. 2480. [*] The notice also provided EPA's explanation of the methodology by which EPA and its contractor conducted technical studies and developed regulations for effluent limitations guidelines and standards of performance for new sources.

On October 11, 1973, EPA issued public notice of proposed effluent limitations guidelines, standards of performance and pretreatment standards for new sources for the emulsion crumb rubber subcategory, 38 Fed. Reg. 28219, App. 2784. This notice, in some detail, summarized the application of EPA's general methodology to the development of the specific guidelines and standards proposed for that subcategory. At approximately the same time, EPA issued two contractor's reports: (1) Development Document For Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Tire and Synthetic Segment of the Rubber Processing Point Source Category (September 1973) ("Development Document") (App. 2548 - 2737), and (2) Economic Analysis

[*] Citation to the Appendix is indicated by "App."

of Proposed Effluent Guidelines for the Rubber Processing Industry (September 1973).

Thereafter, on February 21, 1974, EPA promulgated its final effluent limitations guidelines, standards of performance and pretreatment standards for new sources, 38 Fed. Reg. 6660, App. 2837.

On August 23, 1974, petitioner, in accordance with Section 4(d) of the Administrative Procedure Act (5 U.S.C. § 553(e)), lodged a petition with EPA requesting that the Painesville plant be separately classified within the emulsion crumb rubber subcategory and that the effluent limitations guidelines and standards promulgated under 40 C.F.R. §§ 428.22-428.26 be revised to reflect the products made, the processes employed and the wastewater characteristics existing at the Painesville plant. EPA has not formally responded to the petition, which is set out in Addendum C, infra.

The Challenged Regulations

The 1977 effluent limitations guidelines (40 C.F.R. § 428.22), the standards of performance for new sources (40 C.F.R. § 428.25) and the pretreatment standards for new sources (40 C.F.R. § 428.26) are challenged insofar as they establish effluent limitations for COD ^{1/} and BOD ^{2/} effluent characteristics for the emulsion crumb rubber processes at petitioner's Painesville plant.

^{1/} Abbreviation for Chemical Oxygen Demand.

^{2/} Abbreviation for Biochemical Oxygen Demand.

Although the Painesville plant is an existing one and as such is subject only to the effluent limitations guidelines, it is not inconceivable that petitioner will decide to employ the exact processes used at Painesville for emulsion crumb rubber production in a new plant and may further decide to introduce the effluent from such new plant into a publicly owned treatment works. Accordingly, petitioner is constrained to challenge the standards of performance for new sources (40 C.F.R. § 428.25) and the pretreatment standards for new sources (40 C.F.R. § 428.26) at this time or else be precluded from future judicial review under Section 509(b) of the Act.

The challenged 1977 effluent limitations guidelines prescribe effluent limitations for COD of 8.00 and for BOD of 0.40 pounds per 1000 pounds of product produced (40 C.F.R. § 428.22). ^{1/}

The standards of performance for new sources are identical to the 1977 effluent limitations guidelines, i.e., COD of 8.00 and BOD of 0.40 pounds per 1000 pounds product produced (40 C.F.R. § 428.25).

The pretreatment standard for new sources requires any new source introducing an "incompatible pollutant" into a publicly owned treatment works to meet the new source standard of performance for that pollutant; provided, however, that if the

^{1/} EPA promulgated effluent limitations on the basis of pounds of COD (or BOD) in the effluent per 1000 pounds of product produced, rather than in terms of the pounds of COD (or BOD) per quantity of effluent. This approach eliminated the possibility of a point source meeting on applicable effluent limitation by resorting to dilution of its wastes.

treatment works is committed in its NPDES permit to remove a specified percentage of an incompatible pollutant, the pretreatment standard for that pollutant may be correspondingly reduced (40 C.F.R. § 428.26). EPA's pretreatment standards, however, are essentially incomplete because EPA has not identified those pollutants deemed "incompatible". Nonetheless, it is likely that COD will be identified as an incompatible pollutant and that new sources will be required (through the operation of 40 C.F.R. §§ 428.26 and 428.25) to meet the effluent limitation for COD of 8.00 as a pretreatment standard.^{1/}

Petitioner's Painesville Plant

Product Description

Petitioner's Painesville plant concurrently manufactures polyvinyl chloride resins and a number of nitrile rubber products. Of the plant's total capacity, approximately 81% is devoted to the making of polyvinyl chloride resin, and the remaining 19% to the manufacture of a variety of nitrile rubbers falling into two general product groups: "Regular NBR" and "OZO NBR". Addendum C at 1, 3. Regular NBR is coagulated from an acrylonitrile-butadiene copolymer latex.^{2/} In the case of OZO NBR, however, the

^{1/} Pretreatment standards for existing sources in the emulsion crumb rubber subcategory are in the proposed stage, 39 Fed. Reg. 6666 (February 21, 1974), App. 2843-44. The proposed regulation designates COD as an incompatible pollutant and imposes the 1977 effluent limitation for COD as the applicable pretreatment standard.

^{2/} A latex is a suspension of rubber particles in water, App. 2733.

acrylonitrile-butadiene copolymer latex is blended with polyvinyl chloride latex prior to coagulation. A special characteristic of OZO NBR is its resistance to ozone.

Process Description

The acrylonitrile-butadiene copolymer latex is formed by the emulsion polymerization of a mixture of acrylonitrile and butadiene monomers. Emulsion polymerization is so termed because the monomers are polymerized in the form of droplets emulsified with water. Development Document, App. 2582.

Prior to polymerization a number of ingredients are added to the monomer mixture: emulsifiers, catalyst, activator, modifier and antioxidant. The emulsifiers produce the emulsion of the monomers with the water; the catalyst initiates and promotes polymerization; the activator assists the function of the catalyst; the modifier adjusts the chain length and molecular weight of the rubbery copolymer produced during polymerization; and the anti-oxidant protects the rubbery copolymer from oxidation degradation. Polymerization is performed batchwise in a single reactor until an 80-85 percent conversion of monomer to rubber is achieved. The polymerized reaction mass is called the NBR latex.

The NBR latex is then stripped of its unreacted monomer in a baffled stripping column which operates with steam injection. The steam vaporizes the remaining monomer out of the NBR latex

and the resulting steam-monomer vapor is condensed and completely recycled to the monomer feed stage to be reused as monomer feedstock. This stripping operation is cleaner than that described by EPA for typical emulsion polymerization of styrene butadiene rubber (SBR). According to EPA, the steam-monomer (styrene) condensate is decanted and only the top styrene layer goes to monomer recycle. The bottom layer consisting of styrene-laden water is discharged as wastewater. Development Document, App. 2585.

The stripped NBR latex is passed to a blend tank where, in the case of OZO NBR, the polyvinyl chloride latex is blended into the NBR latex. From the blend tank, the NBR latex enters a coagulation (or flocculation) unit where the addition of coagulation chemicals causes the rubber to precipitate from the latex as rubber crumb.

The choice of coagulation chemicals used in each case depends upon the desired quality and intended end use of the resulting nitrile rubber. The Painesville plant is unusual in that it uses for certain products a coagulation mixture containing acetic acid (App. 2878). This is significant in terms of wastewater characteristics because acetic acid, being organic, contributes to both COD and BOD. ^{1/}

The precipitated NBR crumb is separated from the coagulation liquor on a first dewatering screen, resuspended and washed with water in a reslurry tank and then passed through a second dewatering screen. The crumb rubber is then dried, weighed and

^{1/} See Section III - B, infra.

pressed into bales for shipment. Each dewatering step results in a wastewater wash stream which is sent to the plant's primary treatment facility. Wastewater from reactor or tank washings, area washdowns, spills, steam condensate and utilities also go to primary treatment.

Primary Treatment

All process wastewaters from the nitrile rubber and polyvinyl chloride resin manufacturing operations at Painesville discharge into a newly constructed primary treatment facility consisting of an equalization (primary settling) lagoon, adjustment tanks and a flocculator-clarifier unit.

The equalization lagoon has a retention time of 3.5 days. In the lagoon, variations in the flow rate and composition of raw wastewater influent are averaged out so that subsequent treatment steps are performed on a more uniform wastewater. The long retention time of 3.5 days allows settleable solids to deposit out into the bottom where they can periodically be removed.

Following equalization and settling, the wastewater enters a series of adjustment tanks where the pH is adjusted (the acidic waste is neutralized with a lime slurry) and where chemicals to aid flocculation (e.g., anionic polymers, alum) are added in preparation for the flocculator-clarifier unit.

In the flocculator-clarifier large paddles gently mix the wastewater to promote the growth of floc particles, mainly consisting of uncoagulated latex, which fall to the bottom of the clarifier forming a sludge that is continuously removed by rotating scraper blades. The remaining wastewater flows over the top of the clarifier and is free of suspended solids. The resultant effluent is discharged to the receiving waters without additional treatment.

ARGUMENT

I

JUDICIAL REVIEW

Although Section 509(b) of the Act authorizes judicial review of EPA's actions, it does not specify the standard of review to be applied by the Court.

The applicable standard of review is that provided by Section 10(e) of the Administrative Procedure Act, 5 U.S.C. § 706(2)(A):

* * *

"The reviewing court shall -

* * *

"(2) hold unlawful and set aside agency action, findings, and conclusions found to be -

"(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; . . . "

In applying this standard to Agency action the United States Supreme Court has said:

"Scrutiny of the facts does not end, however, with the determination that the [Agency] has acted within the scope of [its] authority. Section 706(2)(A) requires a finding that the actual choice made was not 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.' . . . To make this finding the Court must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 416 (1971) (emphasis supplied).

See also Udall v. Federal Power Commission, 387 U.S. 428 (1967); State of Texas v. Environmental Protection Agency, 499 F. 2d 289 (5 Cir. 1974); Portland Cement Ass'n. v. Ruckelshaus, 486 F. 2d 375 (D.C. Cir. 1973); Scenic Hudson Preservation Conference v. Federal Power Commission, 354 F. 2d 608 (2 Cir. 1965), cert. denied sub nom., Consolidated Edison Co. of New York v. Scenic Hudson Preservation Conference, 384 U.S. 941 (1966).

The present case requires the Court to consider whether EPA has promulgated regulations with due regard to the relevant factors under the Act, and whether such regulations are supported by the record.

II

EPA'S ALMOST NON-EXISTENT STUDY OF EMULSION CRUMB NITRILE RUBBER PROCESSES AMOUNTED TO A FAILURE TO CONSIDER FACTORS MANDATED FOR EPA CONSIDERATION UNDER THE ACT

EPA adopted a "methodology" which it would use developing effluent limitations guidelines and new source performance standards pursuant to Section 304(b) and 306 of the Act. As announced by EPA, 38 Fed. Reg. 21202 (August 6, 1973), App. 2480, its methodology appeared suitably fashioned to enable EPA to meet the demands of the Act. It provided for EPA to first determine whether separate limitations and standards were appropriate for different "segments" within a point source category. This determination would be based upon a study of whether differences in raw material, products, manufacturing processes, wastewater constituents and other factors required such separate limitations and standards.

Next, raw waste characteristics for each segment were identified through analysis of the source, flow and constituents of the wastewaters of each segment. Following this, the particular pollutants which were to be subject to effluent limitations guidelines and standards of performance were identified for each segment.

The next step involved identification of the control and treatment technologies existing within each segment. Among the factors to be identified here were the existence of in-plant and end-of-process treatment technologies for each segment, the effluent levels achieved by such technologies and the problems and limitations associated with each. In addition, the non-water quality impact of each treatment technology, its cost and energy requirements were determined.

EPA's contractors performed technical studies of over thirty industrial point source categories. EPA characterized these technical studies as being "in-depth" studies. 38 Fed. Reg. 21203, App. 2481. The contractors' findings (reported in the Development Document prepared for each category) were an integral part of EPA's overall methodology and, along with other information available to EPA, served as the "foundation for the regulations to be issued under sections 304(b) and 306 of the Act". Ibid.

EPA, however, virtually ignored this methodology when it promulgated effluent limitations guidelines and standards applicable to emulsion crumb nitrile rubber plants.

Although EPA acknowledged nitrile rubber to be an important

synthetic rubber possessing superior properties useful in non-tire applications, it nevertheless included nitrile rubber in the class of synthetic tire rubbers on the basis of annual production figures. Development Document, App. 2580. Thus, nitrile rubber (NBR) was classified with styrene butadiene rubber (SBR), which is the principal synthetic rubber produced in this country. Development Document, App. 2581.

EPA focused on SBR manufacture in applying its methodology to a study of the emulsion crumb process. The contractor studied just three emulsion crumb rubber plants (plants J, K and L) which reportedly made six separately identifiable "products". Five such products were identified as SBR's produced at plants K and L; the sixth was identified as "SBR and NBR", produced at plant J. Table 12, Development Document, App. 2614 (emphasis supplied). This latter product of course does not exist but merely is meant to indicate that both SBR and NBR were produced at that plant. Development Document, App. 2642. Neither of the other two plants, K and L, produced any NBR. Development Document, App. 2644, 2647.

However, for reasons that are not apparent from the record EPA's contractor failed to obtain any separate data on NBR at plant J. The contractor's handwritten notes show that one set of data reflected combined (whether assumed or actual is not clear) SBR and NBR production for that plant. Contractor's Notes, App. 1534. EPA's wastewater treatment data for plant J also show just one set of values for the SBR and NBR "product" of plant J. Table 41, Development Document, App. 2714. Beyond this meager presentation, the record is completely silent as to any data on

emulsion crumb NBR production. Yet EPA took great pains to obtain and report separate data on the waste streams of five kinds of SBR made at plants K and L. Ibid. It therefore must be concluded that the contractor simply assumed, rather than determined on the basis of study, that SBR data would justify effluent limitations for NBR production as well. This approach turns EPA's methodology around on its head.

Moreover, even if a combined study of SBR and NBR crumb were appropriate, plant J would not be a reasoned choice for study because its production of NBR represents only 2.5 percent of its total production of NBR and SBR, and consequently any distinctiveness otherwise apparent for NBR waste streams would not be discernible from observations made on the basis of combined samples. In an analogous situation at plant M, where both butadiene and polybutadiene are made, EPA correctly avoided drawing conclusions from data on combined streams, stating: "[S]ince the quantity and loading of the wastewaters from the butadiene plant are far greater than those from the polybutadiene plant, no meaningful treatment data could be obtained". Development Document, App. 2651 (emphasis supplied).

Perhaps EPA concluded that its methodology need not be applied to emulsion crumb NBR production because the "process operations for [SBR and NBR] are identical and the same or similar equipment is used" Development Document, App. 2604 (emphasis supplied). But this says nothing about the nature of the wastewaters generated by each process or the applicability of treatment to such wastewaters, which are the crucial points to be

considered for the assessment of "best practicable" and "best demonstrated" technology to be applied to emulsion crumb NBR processes.

Process operations and equipment may be similar from process to process yet produce very different wastewaters (for instance, wastewater characteristics will depend upon the type of coagulation mixture used to coagulate the latex, notwithstanding that each coagulation operation is otherwise carried out in the same general manner and in identical equipment, App.2878). Yet EPA failed to grasp this important point. It completely failed to identify the nature of the wastewaters, the existing treatment technologies and the degree of effluent reduction achievable--just to mention a few of the factors encompassed by EPA's methodology and mandated for consideration under the Act--for emulsion crumb NBR manufacture.

The consequences of this failure are no less than catastrophic to petitioner's Painesville plant, where, as the record shows (App. 2878), certain NBR's generate wastewaters which cannot achieve the prescribed effluent limitations through the application of the "best practicable" treatment technology defined by EPA.^{1/}

^{1/}

See Section III- A, infra.

III

EPA COMPOUNDED ITS FAILURE TO STUDY CRUMB
NITRILE RUBBER WHEN IT DID NOT CONSIDER
CRITICAL DIFFERENCES EXISTING BETWEEN THE
PAINESVILLE NBR PROCESS AND THE SBR
PROCESSES OF THE STUDIED PLANTS

A. Filamentous Growth

(1). The Prescribed 1977- Technology

The 1977 effluent limitations guidelines for emulsion crumb rubber (40 C.F.R. § 428.22) are based upon the best practicable control technology currently available (BPCTCA). As determined by EPA, BPCTCA is primary clarification followed by biological secondary treatment. Development Document, App. 2709-11.

EPA's prescribed primary treatment consists of passing all raw wastewaters through an equalization basin to smooth out waste load peaks and to equalize hydraulic flows. Following equalization, the wastewater is adjusted for pH, and any necessary nutrients to facilitate later biological treatment are added. The adjusted wastewater then flows to a reactor-clarifier unit where coagulating chemicals are added to the wastewater in the reactor compartment to precipitate uncoagulated latex and other settleable solids. The wastewater flows from the reactor compartment to the clarifier compartment where the settleable solids settle out to the bottom and the clarified wastewater overflows the top and enters the biological secondary treatment system. Development Document, App. 2711.

The principle behind biological treatment is the ability of microorganisms to consume soluble organic matter through

synthesis with oxygen to produce insoluble biological solids which can then be removed. Development Document, App. 2711. EPA chose activated sludge biological treatment as its "model" treatment system for developing cost alternatives. Development Document, App. 2676-77. In normal practice, the synthesis of soluble organic matter into insoluble biological solids is carried out in a basin in the presence of suspended biological solids (sludge) formed from previous treatments. The biological solids contain the organisms necessary for biological treatment and other solids as well. Oxygen is supplied to the basin by aeration. After the requisite time for treatment has elapsed, the wastewater containing both old and new biological solids is passed to a secondary clarifier where the insoluble biological solids are settled out as the treated clarified water overflows the clarifier for ultimate discharge from the plant. The settled biological solids are processed and discharged as solid waste except for a portion which is processed for recycle to the basin. Development Document, App. 2711.

(2). Pilot Study of the Application of the 1977-Technology to Painesville's Wastewater

In February, 1973, an activated sludge treatment pilot unit was installed at the Painesville plant for study. The pilot unit had a self-contained aeration tank and secondary clarifier unit. Clarified water was taken from Painesville's primary treatment facility^{1/} and diverted to the activated sludge unit. App. 2878.

^{1/} Painesville's primary treatment unit is described supra, at 14.

The pilot study covered three months. In that time a dramatic problem surfaced: the activated sludge system could not provide adequate biological treatment because of the development of "filamentous growth" in the treatment system. App. 2878.

Filamentous growth is a well known, if not well understood, treatment difficulty.^{1/} It is a condition where the biological solids assume a non-settleable form which is not susceptible to removal in the clarifier. These solids overflow the clarifier producing unclarified effluent and depleting the treatment system of biological solids essential to the maintenance of an active biological system. The condition finally results in the loss of all biological treatment.

The filamentous growth condition observed during the Painesville pilot study gradually took over the system as certain types of NBR were being made. Sometimes only a transient loss in treatment occurred, but at other times there was complete loss of treatment. App. 2878-82.

^{1/} "[S]ludge bulking is the major cause of operational difficulty with the activated sludge process and that, in most cases, bulking occurs when environmental conditions form the growth of filaments to the extent that they outgrow the flocculating organisms. Some environmental conditions that have been implicated as causes of bulking are high BOD loading, low nitrogen concentration, low oxygen tension, and drastic change in pH.

"Filamentous forms have very poor settling characteristics when grown in liquid suspension and cannot be effectively concentrated by sedimentation. A majority of the investigators who have specifically studied filamentous systems have been baffled by this difficulty and have viewed it as a virtually insurmountable problem with respect to the development of a practical treatment system." Randall et al., Journal of the Water Pollution Control Federation, at 401-02 (March 1972).

During the final comment period and while the challenged regulations were still only proposed, petitioner pointed out the problem of filamentous growth and supplied EPA's contractor with detailed operating data from the pilot unit study (App. 2878-82). Petitioner put it plainly to EPA's contractor:

"The effluent water produced from certain types of nitrile rubber trigger the growth of filamentous organisms causing very severe bulking and at times complete loss of treatment. Based on the above problem, biological treatment may not be BPCTCA for emulsion crumb nitrile rubber effluents". (App. 2878) (emphasis supplied).

At the same time, petitioner also commented:

"Our Painesville, Ohio nitrile rubber plant produces a variable effluent stream depending upon type of rubber produced. At present, we use five different floc systems which produce varying BOD, COD, TSS loadings. One rubber produces a filamentous growth that creates bulking problems.

"It is our opinion that the best practicable control technology for emulsion rubber plants, as presented, contains certain flaws and is not completely accurate in all cases. We have discussed this with EPA's Contractor, The Roy F. Weston Company, and supplied them with operating data from our facility for further review of our position on this matter." (App. 2821) (emphasis supplied).

Here EPA was presented with a rare problem which neither EPA nor the contractor had observed during the visits made to plants falling within the synthetic rubber segment of industry, let alone the emulsion crumb rubber subcategory.^{1/}

Yet, not once in the entire record does it appear that EPA

^{1/} EPA felt confident enough that it had covered all points on these visits to state: "All factors potentially influencing industry subcategorizations were presented by the on-site visits". Development Document, App. 2564 (emphasis supplied).

considered the problem of filamentous growth. EPA's published response to one of petitioner's comments failed even to mention the problem. 39 Fed. Reg. 6661 (EPA response No. 14, App. 2838).

EPA's failure to respond in any meaningful way to petitioner's submissions is in itself a clear ground for remand. In a similar case involving review of EPA's stationary source emissions standards issued under Section 111 of the Clean Air Act (42 U.S.C. § 1857c-6), petitioner's engineer, one Striker, submitted to EPA (following an earlier remand) his analysis of various test data and his personal opinion that EPA's promulgated emission level was erroneous. EPA, however, did not respond to this submission. The court's views on EPA's failure to respond are of special importance to the present case and warrant quotation at some length:

"In this case, EPA made no written submission as to the additional comments made by petitioners. Our remand was ordered . . . on October 31, 1972. All that EPA did was to comply with the mandate that the analysis of Mr. Striker be added to the certified record. It may be that EPA considers Mr. Striker's analysis invalid--but we have no way of knowing this. As the record stands, all we have is Mr. Striker's repudiation of the test data, without response. The purpose of our prior remand cannot be realized unless we hear EPA's response to his comments and the record must be remanded again, for that purpose.

* * *

"Since this is a matter involving the public interest, in which the court and agency are in a kind of partnership relationship for the purpose of effectuating the legislative mandate, we remand. This agency, particularly when its decisions can literally mean survival of persons or property, has a continuing duty to take a 'hard look' at the problems involved in its regulatory task, and that

includes an obligation to comment on matters identified as potentially significant by the court order remanding for further presentation. Manufacturers' comments must be significant enough to step over a threshold requirement of materiality before any lack of agency response or consideration becomes of concern. The comment cannot merely state that a particular mistake was made in a sampling operation; it must show why the mistake was of possible significance in the results of the test. This was certainly done by Mr. Striker . . . " Portland Cement Ass'n v. Ruckelshaus, 486 F. 2d 375, 393-4 (D.C. Cir. 1973).

In the present case, EPA's failure to take any look, much less a "hard look", at petitioner's submissions on filamentous growth is, without more, sufficient ground for remand.

B. Coagulant Mixture

The typical SBR plant, according to EPA, precipitates rubber crumb from the copolymer latex by the addition of a sulfuric acid - brine coagulant. Development Document, App. 2585. Although EPA largely ignored reporting on the process ingredients used at the studied plants, in the two instances where it identified the acid component of a coagulant it named sulfuric acid (plants J and K). Development Document, App. 2643, 2646. EPA did not report separately on the small amount of NBR produced at plant J, as previously discussed, giving rise to the inference that plant J probably used sulfuric acid in precipitating the small amount of NBR crumb made there.

At Painesville, however, the only acid-containing coagulant mixture used in precipitating NBR crumb is an acetic acid - brine mixture.^{1/} App. 2878, Addendum C at 5. The difference in the

^{1/} Other coagulants used at Painesville do not contain any acid. App. 2878.

type of acid used is highly significant in terms of wastewater characteristics. Sulfuric acid is inorganic and thus contributes nothing to the COD and BOD of the wastewater, whereas acetic acid contributes greatly to COD and BOD because of its organic nature. This is a critical factor in light of the fact that high BOD has been implicated as a possible cause of filamentous growth.^{1/}

Moreover, the use of acetic acid is not without justification. EPA acknowledges that the choice of coagulant is "limited by the quality and intended end use of the rubber" Development Document, App. 2585. Whereas SBR is largely used in tire manufacture, NBR is used for the manufacture of a variety of end-products, such as seals, gaskets and O-rings (Development Document, App. 2580), each of which requires the NBR to have certain processing characteristics applicable to the manufacture of the finished end-product. The speciality nature of NBR (and especially OZO NBR which has great resistance to attack by ozone) means that even modest changes in the character of the product are likely to be commercially unacceptable.

IV

THE PAINESVILLE PLANT'S RAW WASTE LOADINGS
ARE SIGNIFICANTLY HIGHER THAN THOSE OF ALL
THE SYNTHETIC RUBBER PLANTS STUDIED TO
WARRANT SEPARATE SUBCATEGORIZATION FOR THAT
PLANT ON THE BASIS OF EPA'S OWN METHODOLOGY

As pointed out earlier, both the Act and EPA's methodology call for a degree of industry categorization. The purpose served

^{1/} See n. 1 at 23, supra.

by such categorization is no less than the definition of "those sectors of the . . . industry where separate effluent limitations and standards should apply." Development Document, App. 2598.

In the case of the Rubber Processing Point Source Category, EPA determined that two distinct segments existed: (1) tires and inner tubes and (2) synthetic rubber. Development Document, App. 2557.

The synthetic rubber segment, in turn, was divided into three subcategories: (1) emulsion crumb rubber, (2) solution crumb rubber and (3) latex rubber. Development Document, App. 2558. A set of regulations prescribing effluent limitations guidelines, standards of performance for new sources, and pretreatment standards for new sources, was promulgated for each subcategory. (40 C.F.R. §§ 428.20-428.46, 39 Fed. Reg. 6663-65 (February 21, 1974) App. 2840-42.

EPA's final approach in subcategorizing was to focus on the wastewater characteristics of the various processes within each segment.

"In the final analysis, the underlying distinctions between the various categories and subcategories have been based on the waste water generated, its quantity, characteristics, and applicability of control and treatment". Development Document, App. 2598.

Taking this approach with the various processes within the synthetic rubber segment, EPA concluded that "the waste waters from emulsion crumb, solution crumb, and latex rubber production facilities were significantly different to warrant subcategorization". Development Document, App. 2606 (emphasis supplied). The differences that EPA stressed were not differ-

ences in the kinds of pollutants generated by each of these processes (since EPA found that such process generated the same general type of pollutant) but rather were differences in "raw waste load", or concentration, of each pollutant.^{1/}

EPA justified separate subcategorization of emulsion crumb, solution crumb and latex rubber processes on the basis of the following average raw waste loadings for each:

	<u>COD</u>	<u>BOD</u>	
Emulsion Crumb	19.63	2.56	(Table 12, Dev. Doc., App.2614)
Solution Crumb	9.03	1.13	(Table 14, Dev. Doc., App.2618)
Latex Rubber	34.95	5.31	(Table 15, Dev. Doc., App.2621)

In contrast to these values, are the average COD and BOD raw waste loadings observed at Painesville:^{2/}

	<u>Painesville</u>	
<u>Product</u>	<u>COD</u>	<u>BOD</u>
Regular NBR	89.7	10.3
OZO NBR	129.5	27.5
Average of Both ^{3/}	109.0	18.8

A comparison of the Painesville data to EPA's reported averages clearly shows two things.

^{1/} "All three subcategories generate waste waters which contain the same general constituents. However, the concentration and loading of these constituents, termed 'raw waste load', vary between the subcategories. The significant waste water constituents are COD, BOD, suspended solids, dissolved solids, and oil and grease." Development Document, App. 2558.

^{2/} Addendum C at 3.

^{3/} Average based on approximately equal production rates.

First, it shows that the studied plants, regardless of type, were not representative of the Painesville plant in terms of vital wastewater characteristics. Perhaps this should be expected as a consequence of EPA's failure to consider nitrile crumb rubber processes in general.^{1/}

Second, the differences in COD and BOD between Painesville and each of the three subcategories are far greater than the differences in COD and BOD between any of the three subcategories. Consequently, on the basis of EPA's own methodology (i.e., subcategorization based on "significant differences" in raw waste loading of the processes studied) the Painesville plant warrants separate subcategorization.^{2/}

Separate subcategorization is of obvious importance because it is the basis for the promulgation of regulations which reflect the process and wastewater conditions existing within each subcategory. Petitioner clearly pointed out the problems it had

^{1/} See Section II, supra.

^{2/} Nothing contained in the Act limits the number of subcategories that may be required. As stated by Representative Wright, one of the House Managers for the Conference Report, on S.2770, the basis of the Act:

"For some categories of sources the number of subclasses might be extensive". (Senate Committee on Public Works, A Legislative History of the Water Pollution Control Act Amendments of 1972, 93d Cong., 1st session at 259 (Committee Print, January 1973, Ser. No. 93-1) (hereinafter referred to as "Legislative History").

Representative Wright was referring to new source standards under Section 306 of the Act but these remarks are equally applicable to effluent limitations guidelines and pretreatment standards.

experienced in applying EPA's proposed biological treatment to Painesville's wastes (see Section III-A, supra). Yet EPA saw no need even to consider, much less decide, whether the Painesville plant should be separately subcategorized. In analogous circumstances, EPA deferred promulgating regulations covering polysulfide synthetic rubber manufacture in part because the "wastewaters generated by polysulfide production are highly contaminated and deemed more difficult to treat than the waste waters produced by conventional emulsion or solution polymerization processes". Development Document, App. 2580 (emphasis supplied). The record does not show what kind of treatment difficulties polysulfide wastes presented, but it does show that EPA undertook a separate study of polysulfide manufacture. Ibid.

In another case, EPA has proposed amending its regulations for the inorganic chemical manufacturing point source category (40 C.F.R. § 415.220 - titanium dioxide) to exclude a particular process from the general effect of the regulations while EPA undertakes to collect additional data on the excluded process.^{1/} 39 Fed. Reg. 28536 (August 8, 1974). This is precisely the relief petitioner has requested of EPA in the petition lodged with EPA on August 23, 1974. (See supra at 9).

^{1/}

The exclusion apparently applies just to Du Pont. See E.I. du Pont de Nemours & Co. v. Train, No. 74-1357 (4 Cir. 1974), Pet. Br. at 27-8. Addendum D at 1-2.

V

THE 1977 EFFLUENT LIMITATIONS GUIDELINES
AND NEW SOURCE STANDARDS AS APPLIED TO
PAINESVILLE ARE NOT BASED ON "CURRENTLY
AVAILABLE" OR "DEMONSTRATED" TECHNOLOGY

In developing 1977 effluent limitations guidelines EPA is required by the Act to identify the "degree of effluent reduction attainable through the application of the best practicable control technology currently available". Section 304(b)(1)(A) (emphasis supplied).

The Legislative History makes it clear that EPA is to identify practical and available, as opposed to theoretical or speculative, control technology:

"By the term 'currently available' the Committee means a control technology, which by demonstration projects, pilot plants, and general use, has demonstrated a reasonable level of engineering and economic confidence in the viability of the process at the time of commencement of actual construction of the control facilities". (House Report No. 92-911, 92d Cong. 2d Sess. 101 (1972) (Legislative History, at 788) (emphasis supplied).

This is true also for the development of standards of performance for new sources, where the Act itself refers to "demonstrated" technology:

"The term 'standard of performance' means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants". (Section 306(a)(1)) (emphasis supplied).

Thus, EPA must base its 1977 effluent limitations guidelines and new source performance standards on available and demonstrated technology.

In developing the guidelines and standards for the emulsion crumb rubber subcategory, EPA studied three plants within the subcategory, viz, plants J, K and L. Development Document, App.2642-50. In each case, biological treatment was preceded by primary treatment. Development Document, App.2631. The proposed (later to become final) 1977 effluent limitations and new source standards were based on data derived from the biological treatment systems in use at these three plants. Development Document, App.2713-15. The data are set forth in Table 41 of the Development Document (App.2714). From these data, the degree of effluent reduction exhibited at each plant can readily be calculated in the following manner:

$$\begin{array}{l} \text{[Degree of Effluent Reduction]} \\ \text{(As percentage)} \end{array} = \frac{\text{[Initial loading - Final loading]}}{\text{[Initial loading]}} \times 100$$

Applying this calculation to the COD and BOD data presented in Table 41 for the six cases of emulsion crumb rubber production studied at Plants J, K and L, yields the following:^{1/}

^{1/}

For example: The degree of effluent reduction in COD for Plant J is $\frac{[11.98 - 3.36]}{[11.98]} \times 100 = 80\%$

TABLE A

<u>Plant</u> ^{*/}	<u>Product</u> ^{*/}	Calculated Degree of Effluent Reduction		Final Effluent ^{*/}	
		<u>COD</u>	<u>BOD</u>	<u>COD</u>	<u>BOD</u>
J	SBR and NBR Part Oil and Carbon Black Extended	80%	N.A. ^{1/}	3.36	0.26
K	SBR Part Oil Extended	74%	81%	5.80	0.40
K	SBR Oil Extended	74%	81%	5.15	0.40
L	SBR Oil and Carbon Black Extended	83%	82%	1.48	0.51
L	SBR "Hot", Non- Extended	83%	82%	4.96	0.51
L	SBR Non-Extended	83%	82%	4.40	0.51

Table A illustrates that conventional primary and biological treatment, as currently available and as demonstrated within the emulsion crumb rubber industry, achieves an effluent reduction for COD and BOD of approximately 80 percent. EPA was satisfied that such reductions reflected good treatment. It characterized the final effluent from Plant J as "good" (Development Document, App. 2644) and that from Plant K as "high quality" (Development Document, App. 2647), and although EPA noted that the final effluent quality of Plant L was not perfect, it concluded that "overall treatment provided by the facilities is good" (Development Document, App. 2650).

^{*/} Taken from Table 41, Development Document, App. 2714.

^{1/} EPA reported the untreated BOD for Plant J as "not available" (Development Document, App. 2714) hence it is not possible to calculate the degree of effluent reduction for BOD for that plant. Thus EPA had no raw BOD data for the only plant at which any emulsion crumb NBR was made.

EPA adopted the final effluent BOD of Plant K (0.40) as the BOD limitation for the emulsion crumb subcategory (40 C.F.R. §§ 428.22, 428.25 and 428.26). In the case of COD, however, it concluded that the final effluent COD's of all three plants were too low to be adopted as the COD limitation for the subcategory. Accordingly, EPA adopted a more generous COD limitation of 8.00 "in order to produce effluent limitations that reflect minor processing variations and climatic conditions". Development Document, App. 2713 (emphasis supplied). Where the figure of 8.00 came from, or what kind of process variations are reflected by it, cannot be determined from the record. EPA appears to have just made it up.^{1/}

In order for Painesville to meet these limitations, however, EPA would have to assume that conventional primary and biological treatment, as applied to Painesville's higher raw loadings, was capable of achieving a 92.7 percent reduction in COD and a 97.9 percent reduction in BOD.^{2/} Such reductions not

^{1/} Thus, while taking into account unspecified and minor processing variations on a speculative basis, EPA ignored a major processing variation and a baffling treatment problem pertaining to the Painesville process (See Section III-A, supra).

^{2/} The average raw wastewaters generated by nitrile crumb rubber production at Painesville exhibit a COD of 109.0 and a BOD of 18.8 (Addendum C at 3). Hence, the percent reduction required to meet the prescribed limitations are:

$$\text{For COD: } \frac{[109.0 - 8.00]}{[109.0]} \times 100 = 92.7 \text{ percent}$$

$$\text{For BOD: } \frac{[18.8 - 0.40]}{[18.8]} \times 100 = 97.9 \text{ percent}$$

only are unsupported by what EPA reported to be achievable with good overall treatment (i.e., 80 percent), but they flatly ignore the problem of filamentous growth which petitioner pointed out. (See Section III-A, supra). At no time did EPA consider the technological feasibility, not to mention the costs, of achieving effluent reductions as high as 92.7 for COD and 97.9 for BOD. Thus, EPA would have petitioner construct treatment facilities costing millions of dollars even though the technology necessary to achieve the prescribed limitations is neither "currently available" nor "demonstrated."

VI

EPA DID NOT CONSIDER THE COSTS OF ACHIEVING THE HIGHER LEVELS OF EFFLUENT REDUCTION REQUIRED OF PAINESVILLE UNDER THE 1977 EFFLUENT LIMITATIONS GUIDELINES AND NEW SOURCE STANDARDS

In promulgating effluent limitations guidelines and standards of performance for new sources, EPA is required to focus on the costs of achieving effluent reductions as well as the technology for achieving them.

Section 304(b)(1)(B) of the Act requires that the assessment of best practicable control technology currently available "include consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved".

In establishing or revising any new source performance standard, "the Administrator shall take into consideration the cost of achieving such effluent reduction." Section 306(b)(1)(B).

The costs of wastewater treatment increase in geometric fashion to the degree of pollutant reduction required. As stated by Mr. Russell E. Train, the Administrator of EPA, in testifying before the House Public Works Committee while Chairman of the Council on Environmental Quality:

"[T]he marginal costs of abatements increase greatly as higher levels of reductions are required. For example, EPA estimates that as a general proposition 85 percent reduction costs only 20 percent as much as 100-percent reduction.

To go from 95-percent treatment to 98-percent costs the same amount as going from 85 to 95-percent treatment. And to reduce another percentage of wastes costs the same amount. The last percent of reduction often costs as much as the first 99 percent." (Administration testimony during hearings on H.R. 11896, Committee on Public Works, House of Representatives (December 7, 1971) (Legislative History at 1116)

EPA did not consider these incremental cost factors with regard to the higher levels of effluent reduction (i.e., 92.7 percent for COD and 97.9 percent for BOD) that are required of the Painesville plant under the 1977 effluent limitations guidelines (or required of a new source under the applicable standard of performance). EPA claimed that its cost data should be "conservative" for most of the plants in the emulsion crumb subcategory because the data were based

upon the "highest expected raw waste load". (Development Document, App. 2677) (emphasis supplied). However, the "model" emulsion crumb plant for which EPA presented cost data had vividly low raw loadings compared to the raw loadings of the Painesville plant:

<u>Plant</u>	<u>Raw Loadings</u>		<u>Percent Effluent Reduction to Achieve 1977 Effluent Limitations</u>	
	<u>COD</u>	<u>BOD</u>	<u>COD</u>	<u>BOD</u>
EPA Model Plant ^{1/}	20.00	2.13	60 ^{2/}	81 ^{2/}
Painesville Plant	109.0	18.8	92.7	97.9

Clearly, the model plant precluded EPA from considering cost factors associated with effluent reductions as large as would be required of Painesville (assuming the technology existed). If Mr. Train is correct, the degree to which the model plant failed to reflect petitioner's probable costs is obviously very great, and in any practical sense amounts to no cost analysis at all.

^{1/} Development Document, App. 2682.

^{2/} For COD:
$$\frac{[20.00 - 8.00]}{[20.00]} \times 100 = 60\%$$

For BOD:
$$\frac{[2.13 - 0.40]}{[2.13]} \times 100 = 81\%$$

CONCLUSION

The challenged regulations should be set aside as to petitioner's Painesville plant and remanded to EPA with the direction that EPA comply with the Act and issue regulations which reflect the products made, the processes employed and the wastewater characteristics existing at petitioner's Painesville plant.

Respectfully submitted,

IRA J. KRAKOWER
1230 Avenue of the Americas
Rockefeller Center
New York, New York 10020
(212) 489-4538

ATTORNEY FOR PETITIONER

OF COUNSEL:

ARTHUR, DRY & KALISH
1230 Avenue of the Americas
Rockefeller Center
New York, New York 10020

ADDENDUM A

The pertinent sections of the Federal Water Pollution Control Act, Sections 301, 304, 306, 307, 402, and 509 (33 U.S.C. §§ 1311, 1314, 1316, 1317, 1342 and 1369).

"TITLE III—STANDARDS AND ENFORCEMENT

"EFFLUENT LIMITATIONS

"Sec. 301. (a) Except as in compliance with this section and sections 302, 306, 307, 318, 402, and 404 of this Act, the discharge of any pollutant by any person shall be unlawful.

"(b) In order to carry out the objective of this Act there shall be achieved—

"(1) (A) not later than July 1, 1977, effluent limitations for point sources, other than publicly owned treatment works, (i) which shall require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of this Act, or (ii) in the case of a discharge into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, which shall require compliance with any applicable pretreatment requirements and any requirements under section 307 of this Act; and

"(B) for publicly owned treatment works in existence on July 1, 1977, or approved pursuant to section 203 of this Act prior to June 30, 1974 (for which construction must be completed within four years of approval), effluent limitations based upon secondary treatment as defined by the Administrator pursuant to section 304(d) (1) of this Act; or

"(C) not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 510) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this Act.

"(2) (A) not later than July 1, 1983, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) (2) of this Act, which such effluent limitations shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him (including information developed pursuant to section 315), that such elimination is technologically and economically achievable for a category or class of point sources as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) (2) of this Act, or (ii) in the case of the introduction of a pollutant into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, shall require compliance with any applicable pretreatment requirements and any other requirement under section 307 of this Act; and

"(B) not later than July 1, 1983, compliance by all publicly owned treatment works with the requirements set forth in section 201(g) (2) (A) of this Act.

"(c) The Administrator may modify the requirements of subsection (b) (2) (A) of this section with respect to any point source for which a permit application is filed after July 1, 1977, upon a showing by the owner or operator of such point source satisfactory to the Administrator that such modified requirements (1) will represent the maximum use of technology within the economic capability of the owner or operator; and (2) will result in reasonable further progress toward the elimination of the discharge of pollutants.

"(d) Any effluent limitation required by paragraph (2) of subsection (b) of this section shall be reviewed at least every five years and, if appropriate, revised pursuant to the procedure established under such paragraph.

"(e) Effluent limitations established pursuant to this section or section 302 of this Act shall be applied to all point sources of discharge of pollutants in accordance with the provisions of this Act.

"(f) Notwithstanding any other provisions of this Act it shall be unlawful to discharge any radiological, chemical, or biological warfare agent or high-level radioactive waste into the navigable waters.

"INFORMATION AND GUIDELINES

"SEC. 304. (a) (1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after the date of enactment of this title (and from time to time thereafter revise) criteria for water quality accurately reflecting the latest scientific knowledge (A) on the kind and extent of all identifiable effects on health and welfare including, but not limited to, plankton, fish, shellfish, wildlife, plant life, shorelines, beaches, esthetics, and recreation which may be expected from the presence of pollutants in any body of water, including ground water; (B) on the concentration and dispersal of pollutants, or their byproducts, through biological, physical, and chemical processes; and (C) on the effects of pollutants on biological community diversity, productivity, and stability, including information on the factors affecting rates of eutrophication and rates of organic and inorganic sedimentation for varying types of receiving waters.

"(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after the date of enactment of this title (and from time to time thereafter revise) information (A) on the factors necessary to restore and maintain the chemical, physical, and biological integrity of all navigable waters, ground waters, waters of the contiguous zone, and the oceans; (B) on the factors necessary for the protection and propagation of shellfish, fish, and wildlife for classes and categories of receiving waters and to allow recreational activities in and on the water; and (C) on the measurement and classification of water quality; and (D) for the purpose of section 303, on and the identification of pollutants suitable for maximum daily load measurement correlated with the achievement of water quality objectives.

"(3) Such criteria and information and revisions thereof shall be issued to the States and shall be published in the Federal Register and otherwise made available to the public.

"(b) For the purpose of adopting or revising effluent limitations under this Act the Administrator shall, after consultation with appropriate Federal and State agencies and other interested persons, publish within one year of enactment of this title, regulations, providing guidelines for effluent limitations, and, at least annually thereafter, revise, if appropriate, such regulations. Such regulations shall—

"(1) (A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best practicable control technology currently available for classes and categories of point sources (other than publicly owned treatment works); and

"(B) specify factors to be taken into account in determining the control measures and practices to be applicable to point sources (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best practicable control technology currently available to comply with subsection (b) (1) of section 301 of this Act shall include consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, and shall also take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate;

"(2) (A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods, and other alternatives for classes and categories of point sources (other than publicly owned treatment works); and

"(B) specify factors to be taken into account in determining the best measures and practices available to comply with subsection (b) (2) of section 301 of this Act to be applicable to any

point source (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate; and

"(3) identify control measures and practices available to eliminate the discharge of pollutants from categories and classes of point sources, taking into account the cost of achieving such elimination of the discharge of pollutants.

"(c) The Administrator, after consultation, with appropriate Federal and State agencies and other interested persons, shall issue to the States and appropriate water pollution control agencies within 270 days after enactment of this title (and from time to time thereafter) information on the processes, procedures, or operating methods which

result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of this Act. Such information shall include technical and other data, including costs, as are available on alternative methods of elimination or reduction of the discharge of pollutants. Such information, and revisions thereof, shall be published in the Federal Register and otherwise shall be made available to the public.

"(d) (1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within sixty days after enactment of this title (and from time to time thereafter) information, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, on the degree of effluent reduction attainable through the application of secondary treatment.

"(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within nine months after the date of enactment of this title (and from time to time thereafter) information on alternative waste treatment management techniques and systems available to implement section 201 of this Act.

"(e) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall issue to appropriate Federal agencies, the States, water pollution control agencies, and agencies designated under section 208 of this Act, within one year after the effective date of this subsection (and from time to time thereafter) information including (1) guidelines for identifying and evaluating the nature and extent of nonpoint sources of pollutants, and (2) processes, procedures, and methods to control pollution resulting from—

"(A) agricultural and silvicultural activities, including runoff from fields and crop and forest lands;

"(B) mining activities, including runoff and siltation from new, currently operating, and abandoned surface and underground mines;

"(C) all construction activity, including runoff from the facilities resulting from such construction;

"(D) the disposal of pollutants in wells or in subsurface excavations;

"(E) salt water intrusion resulting from reductions of fresh water flow from any cause, including extraction of ground water, irrigation, obstruction, and diversion; and

"(F) changes in the movement, flow, or circulation of any navigable waters or ground waters, including changes caused by the construction of dams, levees, channels, causeways, or flow diversion facilities.

Such information and revisions thereof shall be published in the Federal Register and otherwise made available to the public.

"(f) (1) For the purpose of assisting States in carrying out programs under section 402 of this Act, the Administrator shall publish, within one hundred and twenty days after the date of enactment of this title, and review at least annually thereafter and, if appropriate, revise guidelines for pretreatment of pollutants which he determines are not susceptible to treatment by publicly owned treatment works. Guidelines under this subsection shall be established to control and prevent the discharge into the navigable waters, the contiguous zone, or the ocean (either directly or through publicly owned treatment works) of any pollutant which interferes with, passes through, or otherwise is incompatible with such works.

"(2) When publishing guidelines under this subsection, the Administrator shall designate the category or categories of treatment works to which the guidelines shall apply.

"(g) The Administrator shall, within one hundred and eighty days from the date of enactment of this title, promulgate guidelines establishing test procedures for the analysis of pollutants that shall include the factors which must be provided in any certification pursuant to section 401 of this Act or permit application pursuant to section 402 of this Act.

"(h) The Administrator shall (1) within sixty days after the enactment of this title promulgate guidelines for the purpose of establishing uniform application forms and other minimum requirements for the acquisition of information from owners and operators of point-sources of discharge subject to any State program under section 402 of this Act, and (2) within sixty days from the date of enactment of this title promulgate guidelines establishing the minimum procedural and other elements of any State program under section 402 of this Act which shall include:

"(A) monitoring requirements;

"(B) reporting requirements (including procedures to make information available to the public);

"(C) enforcement provisions; and

"(D) funding, personnel qualifications, and manpower requirements (including a requirement that no board or body which approves permit applications or portions thereof shall include, as a member, any person who receives, or has during the previous two years received, a significant portion of his income directly or indirectly from permit holders or applicants for a permit).

"(i) The Administrator shall, within 270 days after the effective date of this subsection (and from time to time thereafter), issue such information on methods, procedures, and processes as may be appropriate to restore and enhance the quality of the Nation's publicly owned fresh water lakes.

"(j) (1) The Administrator shall, within six months from the date of enactment of this title, enter into agreements with the Secretary of Agriculture, the Secretary of the Army, and the Secretary of the Interior to provide for the maximum utilization of the appropriate programs authorized under other Federal law to be carried out by such Secretaries for the purpose of achieving and maintaining water quality through appropriate implementation of plans approved under section 208 of this Act.

"(2) The Administrator, pursuant to any agreement under paragraph (1) of this subsection is authorized to transfer to the Secretary of Agriculture, the Secretary of the Army, or the Secretary of the Interior any funds appropriated under paragraph (3) of this subsection to supplement any funds otherwise appropriated to carry out appropriate programs authorized to be carried out by such Secretaries.

"(3) There is authorized to be appropriated to carry out the provisions of this subsection, \$100,000,000 per fiscal year for the fiscal year ending June 30, 1973, and the fiscal year ending June 30, 1974.

"NATIONAL STANDARDS OF PERFORMANCE"

"Sec. 306. (a) For purposes of this section:

"(1) The term 'standard of performance' means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

"(2) The term 'new source' means any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this section which will be applicable to such source, if such standard is thereafter promulgated in accordance with this section.

"(3) The term 'source' means any building, structure, facility, or installation from which there is or may be the discharge of pollutants.

"(4) The term 'owner or operator' means any person who owns, leases, operates, controls, or supervises a source.

"(5) The term 'construction' means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

"(b) (1) (A) The Administrator shall, within ninety days after the date of enactment of this title publish (and from time to time thereafter shall revise) a list of categories of sources, which shall, at the minimum, include:

- "pulp and paper mills;
- "paperboard, builders paper and board mills;
- "meat product and rendering processing;
- "dairy product processing;
- "grain mills;
- "canned and preserved fruits and vegetables processing;
- "canned and preserved seafood processing;
- "sugar processing;
- "textile mills;
- "cement manufacturing;
- "feedlots;
- "electroplating;
- "organic chemicals manufacturing;
- "inorganic chemicals manufacturing;
- "plastic and synthetic materials manufacturing;
- "soap and detergent manufacturing;
- "fertilizer manufacturing;
- "petroleum refining;
- "iron and steel manufacturing;
- "nonferrous metals manufacturing;
- "phosphate manufacturing;
- "steam electric powerplants;
- "ferroalloy manufacturing;
- "leather tanning and finishing;
- "glass and asbestos manufacturing;
- "rubber processing; and
- "timber products processing.

"(B) As soon as practicable, but in no case more than one year, after a category of sources is included in a list under subparagraph (A) of this paragraph, the Administrator shall propose and publish regulations establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one hundred and twenty days after publication of such proposed regulations, such standards with such adjustments as he deems appropriate. The Administrator shall, from time to time, as technology and alternatives change, revise such standards following the procedure required by this subsection for promulgation of such standards. Standards of performance, or revisions thereof, shall become effective upon promulgation. In establishing or revising Federal standards of performance for new sources under this section, the Administrator shall take into consideration the cost of achieving such effluent reduction, and any non-water quality environmental impact and energy requirements.

"(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards and shall consider the type of process employed (including whether batch or continuous).

"(3) The provisions of this section shall apply to any new source owned or operated by the United States.

"(c) Each State may develop and submit to the Administrator a procedure under State law for applying and enforcing standards of performance for new sources located in such State. If the Administrator finds that the procedure and the law of any State require the application and enforcement of standards of performance to at least the same extent as required by this section, such State is authorized to apply and enforce such standards of performance (except with respect to new sources owned or operated by the United States).

"(d) Notwithstanding any other provision of this Act, any point source the construction of which is commenced after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 and which is so constructed as to meet all applicable standards of performance shall not be subject to any more stringent standard of performance during a ten-year period beginning on the date of completion of such construction or during the period of depreciation or amortization of such facility for the purposes of section 167 or 169 (or both) of the Internal Revenue Code of 1954, whichever period ends first.

"(e) After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

"TOXIC AND PRETREATMENT EFFLUENT STANDARDS"

"Sec. 307. (a) (1) The Administrator shall, within ninety days after the date of enactment of this title, publish (and from time to time thereafter revise) a list which includes any toxic pollutant or combination of such pollutants for which an effluent standard (which may include a prohibition of the discharge of such pollutants or combination of such pollutants) will be established under this section. The Administrator in publishing such list shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms.

"(2) Within one hundred and eighty days after the date of publication of any list, or revision thereof, containing toxic pollutants or combination of pollutants under paragraph (1) of this subsection, the Administrator, in accordance with section 553 of title 5 of the United States Code, shall publish a proposed effluent standard (or a prohibition) for such pollutant or combination of pollutants which shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms, and he shall publish a notice for a public hearing on such proposed standard to be held within thirty days. As soon as possible after such hearing, but not later than six months after publication of the proposed effluent standard (or prohibition), unless the Administrator finds, on the record, that a modification of such proposed standard (or prohibition) is justified based upon a preponderance of evidence adduced at such hearings, such standard (or prohibition) shall be promulgated.

"(3) If after a public hearing the Administrator finds that a modification of such proposed standard (or prohibition) is justified, a revised effluent standard (or prohibition) for such pollutant or combination of pollutants shall be promulgated immediately. Such standard (or prohibition) shall be reviewed and, if appropriate, revised at least every three years.

"(4) Any effluent standard promulgated under this section shall be at that level which the Administrator determines provides an ample margin of safety.

"(5) When proposing or promulgating any effluent standard (or prohibition) under this section, the Administrator shall designate the category or categories of sources to which the effluent standard (or prohibition) shall apply. Any disposal of dredged material may be included in such a category of sources after consultation with the Secretary of the Army.

"(6) Any effluent standard (or prohibition) established pursuant to this section shall take effect on such date or dates as specified in the order promulgating such standard, but in no case more than one year from the date of such promulgation.

"(7) Prior to publishing any regulations pursuant to this section the Administrator shall, to the maximum extent practicable within the time provided, consult with appropriate advisory committees, States, independent experts, and Federal departments and agencies.

"(b) (1) The Administrator shall, within one hundred and eighty days after the date of enactment of this title and from time to time thereafter, publish proposed regulations establishing pretreatment standards for introduction of pollutants into treatment works (as defined in section 212 of this Act) which are publicly owned for those pollutants which are determined not to be susceptible to treatment by such treatment works or which would interfere with the operation of such treatment works. Not later than ninety days after such publication, and after opportunity for public hearing, the Administrator shall promulgate such pretreatment standards. Pretreatment standards under this subsection shall specify a time for compliance not to exceed three years from the date of promulgation and shall be established to prevent the discharge of any pollutant through treatment works (as defined in section 212 of this Act) which are publicly owned, which pollutant interferes with, passes through, or otherwise is incompatible with such works.

"(2) The Administrator shall, from time to time, as control technology, processes, operating methods, or other alternatives change, revise such standards following the procedure established by this subsection for promulgation of such standards.

"(3) When proposing or promulgating any pretreatment standard under this section, the Administrator shall designate the category or categories of sources to which such standard shall apply.

"(4) Nothing in this subsection shall affect any pretreatment requirement established by any State or local law not in conflict with any pretreatment standard established under this subsection.

"(c) In order to insure that any source introducing pollutants into a publicly owned treatment works, which source would be a new source subject to section 306 if it were to discharge pollutants, will not cause a violation of the effluent limitations established for any such treatment works, the Administrator shall promulgate pretreatment standards for the category of such sources simultaneously with the promulgation of standards of performance under section 306 for the equivalent category of new sources. Such pretreatment standards shall prevent the discharge of any pollutant into such treatment works, which pollutant may interfere with, pass through, or otherwise be incompatible with such works.

"(d) After the effective date of any effluent standard or prohibition or pretreatment standard promulgated under this section, it shall be unlawful for any owner or operator of any source to operate any source in violation of any such effluent standard or prohibition or pretreatment standard.

"NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

"SEC. 402. (a) (1) Except as provided in sections 318 and 404 of this Act, the Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 301(a), upon condition that such discharge will meet either all applicable requirements under sections 301, 302, 306, 307, 308, and 403 of this Act, or prior to the taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this Act.

"(2) The Administrator shall prescribe conditions for such permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate.

"(3) The permit program of the Administrator under paragraph (1) of this subsection, and permits issued thereunder, shall be subject to the same terms, conditions, and requirements as apply to a State permit program and permits issued thereunder under subsection (b) of this section.

"(4) All permits for discharges into the navigable waters issued pursuant to section 13 of the Act of March 3, 1899, shall be deemed to be permits issued under this title, and permits issued under this title shall be deemed to be permits issued under section 13 of the Act of March 3, 1899, and shall continue in force and effect for their term unless revoked, modified, or suspended in accordance with the provisions of this Act.

"(5) No permit for a discharge into the navigable waters shall be issued under section 13 of the Act of March 3, 1899, after the date of enactment of this title. Each application for a permit under section 13 of the Act of March 3, 1899, pending on the date of enactment of this Act shall be deemed to be an application for a permit under this section. The Administrator shall authorize a State, which he determines has the capability of administering a permit program which will carry out the objective of this Act, to issue permits for discharges into the navigable waters within the jurisdiction of such State. The Administrator may exercise the authority granted him by the preceding sentence only during the period which begins on the date of enactment of this Act and ends either on the ninetieth day after the date of the first promulgation of guidelines required by section 304 (h) (2) of this Act, or the date of approval by the Administrator of a permit program for such State under subsection (b) of this section, whichever date first occurs, and no such authorization to a State shall extend beyond the last day of such period. Each such permit shall be subject to such conditions as the Administrator determines are necessary to carry out the provisions of this Act. No such permit shall issue if the Administrator objects to such issuance.

"(b) At any time after the promulgation of the guidelines required by subsection (h) (2) of section 304 of this Act, the Governor of each State desiring to administer its own permit program for discharges

into navigable waters within its jurisdiction may submit to the Administrator a full and complete description of the program it proposes to establish and administer under State law or under an interstate compact. In addition, such State shall submit a statement from the attorney general (or the attorney for those State water pollution control agencies which have independent legal counsel), or from the chief legal officer in the case of an interstate agency, that the laws of such State, or the interstate compact, as the case may be, provide adequate authority to carry out the described program. The Administrator shall approve each such submitted program unless he determines that adequate authority does not exist:

"(1) To issue permits which—

"(A) apply, and insure compliance with, any applicable requirements of sections 301, 302, 306, 307, and 403;

"(B) are for fixed terms not exceeding five years; and

"(C) can be terminated or modified for cause including, but not limited to, the following:

"(i) violation of any condition of the permit;

"(ii) obtaining a permit by misrepresentation, or failure to disclose fully all relevant facts;

"(iii) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

"(D) control the disposal of pollutants into wells;

"(2) (A) To issue permits which apply, and insure compliance with, all applicable requirements of section 308 of this Act, or

"(B) To inspect, monitor, enter, and require reports to at least the same extent as required in section 308 of this Act;

"(3) To insure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to provide an opportunity for public hearing before a ruling on each such application;

"(4) To insure that the Administrator receives notice of each application (including a copy thereof) for a permit;

"(5) To insure that any State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State (and the Administrator) with respect to any permit application and, if any part of such written recommendations are not accepted by the permitting State, that the permitting State will notify such affected State (and the Administrator) in writing of its failure to so accept such recommendations together with its reasons for so doing;

"(6) To insure that no permit will be issued if, in the judgment of the Secretary of the Army acting through the Chief of Engineers, after consultation with the Secretary of the department in which the Coast Guard is operating, anchorage and navigation of any of the navigable waters would be substantially impaired thereby;

"(7) To abate violations of the permit or the permit program, including civil and criminal penalties and other ways and means of enforcement;

"(8) To insure that any permit for a discharge from a publicly owned treatment works includes conditions to require adequate notice to the permitting agency of (A) new introductions into such works of pollutants from any source which would be a new source as defined in section 306 if such source were discharging pollutants, (B) new introductions of pollutants into such works from a source which would be subject to section 301 if it were discharging such pollutants, or (C) a substantial change in volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time of issuance of the permit. Such notice shall include information on the quality and quantity of effluent to be introduced into such treatment works and any anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works; and

"(9) To insure that any industrial user of any publicly owned treatment works will comply with sections 204(b), 307, and 308.

"(c) (1) Not later than ninety days after the date on which a State has submitted a program (or revision thereof) pursuant to subsection (b) of this section, the Administrator shall suspend the issuance of permits under subsection (a) of this section as to those navigable waters subject to such program unless he determines that the State permit program does not meet the requirements of subsection (b) of this section or does not conform to the guidelines issued under section 304(h)(2) of this Act. If the Administrator so determines, he shall notify the State of any revisions or modifications necessary to conform to such requirements or guidelines.

"(2) Any State permit program under this section shall at all times be in accordance with this section and guidelines promulgated pursuant to section 304(h)(2) of this Act.

"(3) Whenever the Administrator determines after public hearing that a State is not administering a program approved under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

"(d)(1) Each State shall transmit to the Administrator a copy of each permit application received by such State and provide notice to the Administrator of every action related to the consideration of such permit application, including each permit proposed to be issued by such State.

"(2) No permit shall issue (A) if the Administrator within ninety days of the date of his notification under subsection (b)(3) of this section objects in writing to the issuance of such permit, or (B) if the Administrator within ninety days of the date of transmittal of the proposed permit by the State objects in writing to the issuance of such permit as being outside the guidelines and requirements of this Act.

"(3) The Administrator may, as to any permit application, waive paragraph (2) of this subsection.

"(e) In accordance with guidelines promulgated pursuant to subsection (h)(2) of section 304 of this Act, the Administrator is authorized to waive the requirements of subsection (d) of this section at the time he approves a program pursuant to subsection (b) of this section for any category (including any class, type, or size within such category) of point sources within the State submitting such program.

"(f) The Administrator shall promulgate regulations establishing categories of point sources which he determines shall not be subject to the requirements of subsection (d) of this section in any State with a program approved pursuant to subsection (b) of this section. The Administrator may distinguish among classes, types, and sizes within any category of point sources.

"(g) Any permit issued under this section for the discharge of pollutants into the navigable waters from a vessel or other floating craft shall be subject to any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage, and stowage of pollutants.

"(h) In the event any condition of a permit for discharges from a treatment works (as defined in section 212 of this Act) which is publicly owned is violated, a State with a program approved under subsection (b) of this section or the Administrator, where no State program is approved, may proceed in a court of competent jurisdiction to restrict or prohibit the introduction of any pollutant into such treatment works by a source not utilizing such treatment works prior to the finding that such condition was violated.

"(i) Nothing in this section shall be construed to limit the authority of the Administrator to take action pursuant to section 309 of this Act.

"(j) A copy of each permit application and each permit issued under this section shall be available to the public. Such permit application or permit, or portion thereof, shall further be available on request for the purpose of reproduction.

"(k) Compliance with a permit issued pursuant to this section shall be deemed compliance, for purposes of sections 309 and 305, with sections 301, 302, 306, 307, and 403, except any standard imposed under section 307 for a toxic pollutant injurious to human health. Until December 31, 1974, in any case where a permit for discharge has been applied for pursuant to this section, but final administrative disposition of such application has not been made, such discharge shall not be a violation of (1) section 301, 306, or 402 of this Act, or (2) section 13 of the Act of March 3, 1899, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. For the 180-day period beginning on the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, in the case of any point source discharging any pollutant or combination of pollutants immediately prior to such date of enactment which source is not subject to section 13 of the Act of March 3, 1899, the discharge by such source shall not be a violation of this Act if such a source applies for a permit for discharge pursuant to this section within such 180-day period.

"ADMINISTRATIVE PROCEDURE AND JUDICIAL REVIEW

"Sec. 509. (a) (1) For purposes of obtaining information under section 303 of this Act, or carrying out section 507(e) of this Act, the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for effluent data, upon a showing satisfactory to the Administrator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act, or when relevant in any proceeding under this Act. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpoena served upon any person under this subsection, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator, to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

"(2) The district courts of the United States are authorized, upon application by the Administrator, to issue subpoenas for attendance and testimony of witnesses and the production of relevant papers, books, and documents, for purposes of obtaining information under sections 304 (b) and (c) of this Act. Any papers, books, documents, or other information or part thereof, obtained by reason of such a subpoena shall be subject to the same requirements as are provided in paragraph (1) of this subsection.

"(b) (1) Review of the Administrator's action (A) in promulgating any standard of performance under section 306, (B) in making any determination pursuant to section 306(b) (1) (C), (C) in promulgating any effluent standard, prohibition, or treatment standard under section 307, (D) in making any determination as to a State permit program submitted under section 402(b), (E) in approving or promulgating any effluent limitation or other limitation under section 301, 302, or 306, and (F) in issuing or denying any permit under section 402, may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts such business upon application by such person. Any such application shall be made within ninety days from the date of such determination, approval, promulgation, issuance or denial, or after such date only if such application is based solely on grounds which arose after such ninetieth day.

"(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) of this subsection shall not be subject to judicial review in any civil or criminal proceeding for enforcement.

"(c) In any judicial proceeding brought under subsection (b) of this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

ADDENDUM B

The effluent limitations guidelines and new source standards for the Emulsion Crumb Rubber Subcategory of the Rubber Processing Point Source Category are 40 C.F.R. §§ 428.20 - 428.22, 428.25, 428.26, 39 Fed. Reg. 6663-64 (February 21, 1974), App. 2840-41.

Subpart B—Emulsion Crumb Rubber Subcategory

§ 428.20 Applicability: description of the emulsion crumb rubber subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the manufacture of emulsion crumb rubber.

§ 428.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in Methods for Chemical Analysis of Water and Wastes, 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 217.

§ 428.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or

other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kg/kg of product)		
COD.....	12.00	8.00
BOD ₅60	.40
TSS.....	.98	.65
Oil and grease.....	.24	.16
pH.....	Within the range 6.0 to 9.0.	
English units (lb./1,000 lb of product)		
COD.....	12.00	8.00
BOD ₅60	.40
TSS.....	.98	.65
Oil and grease.....	.24	.16
pH.....	Within the range 6.0 to 9.0.	

§ 428.25 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: the limitations shall be as specified in § 428.22.

§ 428.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the emulsion crumb rubber subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows: "In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 428.25; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

ADDENDUM C

ARTHUR, DRY & KALISH

1230 AVENUE OF THE AMERICAS

ROCKEFELLER CENTER

NEW YORK, N. Y. 10020

TELEPHONE: 480-4510
AREA CODE: 212
CABLE ADDRESS: ADROLAW

MYRON KALISH
ROBERT J. PATTERSON
DAVID J. O'BOYLE
WALTER BARTHOLD
WILLARD R. SPROWLS
DAVID E. MILLER
GREGORY M. CHEPLIN
RAY K. KUHN
LAWRENCE D. LENIHAN
GERALD M. GURA
HARVEY E. SUNGARDNER, JR.
JACK POSIN
ALAN R. ELTON
NORBERT P. HOLLER
BERT J. LEWEN

MARY A. CURRY
CHARLES A. BLANK
THOMAS A. BECK
HENRY STERNBERG
STEVEN H. BAZERMAN
ALLAN J. BERLOWITZ
IRA J. KRAKOWER
JAY L. CHASKIN
HARRY N. TURK
MARSHALL M. PEARLMAN
WILLIAM C. WHITEMORE III
PHILIP SANDS
HERBERT A. STERN
K. SCOTT MULDOON
RICHARD A. WELLER

August 20, 1974

John E. Riley
United States Environmental
Protection Agency
923 East Tower
Waterside Mall
401 M. Street, S.W.
Washington, D. C. 20460

Dear Mr. Riley:

This letter is submitted to you on behalf of Uniroyal, Inc., and expresses Uniroyal's concern over the application of the effluent limitations guidelines and standards for the Emulsion Crumb Rubber Subcategory (40 C.F.R. § 428.20 - § 428.26, 39 Fed. Reg. 6663) to Uniroyal's chemical facility located in Painesville, Ohio.

This letter also will serve two distinct purposes. First, as requested by Mr. Mulloy, Department of Justice, it will give you some information on Uniroyal's position under the synthetic rubber regulations in advance of our discussing them at the meeting scheduled for August 23rd in connection with the Tire and Inner Tube Subcategory and the litigation related thereto. Second, it represents Uniroyal's petition to the Agency for an amendment to 40 C.F.R. § 428.20 - § 428.26 that would establish a separate subcategory and less stringent effluent limitations guidelines and standards for Uniroyal's Painesville facility.

Uniroyal's Painesville plant concurrently manufactures both emulsion and suspension PVC and several types of crumb nitrile rubber (NBR). The approximate percentages of total product for each are: emulsion PVC, 29%; suspension PVC, 52%; emulsion crumb NBR, 19%. There is no SBR or other non-nitrile type of synthetic rubber produced at the Painesville plant. The waste streams resulting from the separate manufacture of the various PVC and NBR products flow into a single primary treatment plant consisting of an equalization lagoon, chemical treatment and clarification.

Uniroyal's concern stems from the facts that its Painesville wastes cannot meet the effluent limitations guidelines for COD and BOD promulgated in 40 C.F.R. § 428.22 and § 428.23 as representing the degree of effluent reduction attainable by the application of the "best practicable" (July 1, 1977) and "best available" (July 1, 1983) treatment technology for the Emulsion Crumb Rubber Subcategory. The underlying reason for this result is that certain factors central to the quantity, character and treatability of the Painesville wastes were not considered by the Agency during the course of its development study of the synthetic rubber industry, and as a consequence the Agency formulated and relied upon a model for the Emulsion Crumb Rubber Subcategory which is not an accurate reflection of the waste water situation at Painesville. These factors will be considered, briefly, below.

1. Raw Waste Loadings At Painesville Are Significantly Higher Than Those Of The Emulsion Crumb Plants Studied To Warrant Separate Subcategorization

The Development Document *in many places stresses the importance of raw waste characteristics in determining industry categorization. It succinctly states (at p. 41):

In the final analysis, the underlying distinctions between the various categories and subcategories have been based on the waste water generated, its quantity, characteristics, and applicability of control and treatment.

Indeed, the waste waters from emulsion crumb, solution crumb and latex rubber production facilities were deemed to be "significantly different to warrant subcategorization" (Development Document, p. 49) on the basis of the following average COD and BOD values** for each type facility:

	<u>COD</u>	<u>BOD</u>	<u>(Source)</u>
Emulsion Crumb	19.63	2.56	Table 12
Solution Crumb	9.03	1.13	Table 14
Latex Rubber	34.95	5.31	Table 15

* Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Tire and Synthetic Segment of the Rubber Processing Point Source Category (February 1974 edition).

** All values discussed are in lb/1000 lb. product.

Compare these values with average COD and BOD loadings observed at Painesville:

	<u>Painesville</u>		
	<u>COD</u>	<u>BOD</u>	
Regular NBR	89.7	10.3	OZO NBR is a distinct specialty product which accounts for approximately 50% of all NBR made at Painesville
OZO NBR	129.5	27.5	
Average of Both	109.0	18.8	

The COD and BOD values for Painesville, quite clearly, are significantly higher than those of all three existing subcategories. This comparison holds true even if one compares the Painesville values with the highest COD and BOD values observed in the emulsion crumb subcategory:

	<u>COD</u>	<u>BOD</u>	<u>(Source)</u>
Plant "L" (SBR)	29.24	2.84	Table 12

It is also significant to note that polysulfide rubber production was excluded from the Development Document at least in part for the reason that the wastes generated by that process are of poorer quality than those of the emulsion or solution processes (Development Document, pp. 24-26).

It appears, therefore, that on the basis of the Agency's own methodology the Painesville plant is deserving of Agency study and, ultimately, separate subcategorization.

2. The Painesville Plant's Raw Wastes Are More Difficult To Treat Because of Filamentous Growth

Pilot studies at Painesville show that conventional activated sludge secondary treatment of the plant's wastes produces a filamentous growth condition which causes severe bulking and at times complete loss of treatment. This information was referred to by Uniroyal during the final comment period and supplied to the Agency's contractor, Roy F. Weston, Inc., by letter dated November 12, 1973. It appears, however, that the contractor did not communicate such information to the Agency. The Agency's contractor suggested (by telephone) that Uniroyal add basic nutrients to overcome the filamentous problem. When tried in the pilot study, however, this approach proved to no avail.

Accordingly, it may be entirely possible that conventional activated sludge secondary treatment is inappropriate, for whatever reason, to Painesville's waste water, and that a form of secondary treatment which uses a fixed microbic medium such as a rotating disc or trickling filter system might be the "best practicable" and "best available" control technology for such wastes.

The Development Document noted in excluding polysulfide wastes from the study that such wastes were more difficult to treat than the wastes from the emulsion and solution processes (Development Document, pp. 24-26).

3. The Plants Studied By The Agency Are Not Representative Of The Painesville Plant

The effluent limitations guidelines and standards established for the emulsion crumb subcategory were largely the result of the Agency's study of just six products made at only three plants, and of these, only plant "J" is shown in the Development Document to have produced any NBR at all (Table 12, Development Document, p. 57) and at that it only produced NBR up to 2.5% of its total product capacity (Development Document, p. 96). The other plants studied, "K" and "L", produced no NBR at all. The net result of this is that the Agency studied plants whose combined NBR production represented only 1.4% of their combined total capacity to produce emulsion crumb rubber (and at that the BOD data for plant "J" was "not available" for publication), the remaining 98.6% being SBR types.

At Painesville, however, about 19% of the plant's capacity is used for production of various nitrile rubbers. Moreover, the remaining capacity is devoted to non-rubber commodities which puts Painesville squarely in the class of facilities not visited by the Agency's contractor (Development Document, p. 56).

Finally, about 50% of the nitrile rubber produced at Painesville is OZO nitrile rubber. OZO NBR is a blend of regular NBR and PVC latexes. As shown under Point 1 above, the raw waste loadings for OZO are extremely high for both COD and BOD parameters. No OZO type NBR is reported in the Development Document to have been studied by the agency.

4. High COD and BOD Raw Waste Loads And
Poor Treatability Appear Inherent In
NBR Production At Painesville

On the basis of industry-wide production figures alone, the Agency classified nitrile rubber as a "tire rubber" (Development Document, p. 24), although, in fact, the variety of processing conditions, compositions and end uses for nitrile rubber clearly mark it as a "speciality rubber". This classification was made for convenience and no other reason (Development Document, Table 4, p. 25).

Apparently, the high initial COD and BOD values associated with both regular NBR and OZO NBR at Painesville are attributable to the type of emulsifier and floc system employed in the production of many of the NBR's made there. The Agency generally assumes that a sulfuric acid - salt floc system is used in emulsion polymerization (Development Document, p. 29) but the actual case at Painesville involves the use of an organic acid, which, naturally, contributes to the COD and BOD values observed. Similarly, high levels of emulsifier are present in many of the recipes used at Painesville and the emulsifier generally employed there mainly goes with the effluent, and not with the rubber, after flocculation.

The Agency recognizes that the "quality and intended end use of the rubber limit the choice of coagulants" (Development Document, p. 29) and that many potential in-plant control methods are not feasible because they would call for radical changes in processing or product quality (Development Document, p. 115). Studies thus far conducted by Uniroyal involving lowering the level of emulsifier and/or changing to a sulfuric acid-salt floc system tend to bear this conclusion out i.e., both processing quality and product quality of the NBR are adversely affected by such in-plant changes. The specialty nature of NBR means that even modest changes in the character of the product are likely to be commercially unacceptable. At the present time, Uniroyal's investigation of the feasibility of making in-plant changes as a means of lowering initial COD and BOD values is continuing but the efficacy of such an approach is as yet unproved.

5. Under Present Effluent Limitations Guidelines
And Standards Painesville's Wastes Require
A Disproportionately High Percentage
Reduction For Both COD and BOD Parameters.

Table 41 at page 165 of the Development Document lists raw waste loads and final effluent quality (after treatment)

for the emulsion crumb plants studied. Taking the raw loadings for such plants and determining for each the percentage reduction of COD and BOD values necessary to reach the July 1, 1977 effluent limitations established in 40 C.F.R. § 428.22, namely COD 8.00 and BOD 0.40, yields the following:

Reduction Needed To Achieve Effluent Limitations by July 1, 1977 (Emulsion Crumb Subcategory)			
<u>Plant</u>	<u>Product</u>	<u>% COD Reduction</u>	<u>% BOD Reduction</u>
J	SBR and NBR Part Oil and Carbon Black Extended	33.2	N.A.
K	SBR Part Oil Extended	64.0	81
K	SBR Oil Extended	59.5	81
L	SBR Oil and Carbon Black Extended	8.2	82
L	SBR "Hot", Non- Extended	72.6	86
L	SBR Non-Extended	69.1	86

Yet for Painesville, the corresponding percentages are:

92.7 97.9

This is greater than the overall 90% COD reduction envisioned for a "typical" emulsion crumb plant by July 1, 1983 through the application of "Best Available Technology Economically Achievable" (Development Document, Table 20, p. 133).

6. The Agency Is Aware That Neither Secondary Biological Treatment (For July 1, 1977) Nor Advanced Carbon Adsorption (For July 1, 1983) Can Achieve The Expected Degree Of COD Reduction Required At Painesville By Those Dates

The Agency essentially ignores the COD parameter in establishing biological secondary treatment as the July 1, 1977 "best practicable" technology. The Development Document states, at p. 164:

The proposed COD effluent limitation [8.00] for BPCTCA is higher than the normal COD effluent load from the selected plants [the highest is 5.80 for Plant "K"]. This value [8.00] was conservatively selected in order to produce effluent limitations that reflect minor processing variations and climatic conditions. Since in practice the effluent COD from a biological treatment facility is essentially independent of the treatment design and operation, it is not feasible to develop COD limitations for a control and treatment technology, namely biological treatment, that does not effectively remove COD. The important parameters associated with the BPCTCA are therefore BOD, suspended solids, oil and grease."

It therefore goes against the Agency's own methodology for it to establish biological secondary treatment for July 1, 1977 -- which is acknowledged as an inefficient treatment for COD removal -- while imposing upon Painesville the obligation to achieve an incredible 92.7 percent reduction in COD by that date.

Moreover, the Agency is not even certain that better than a 75 percent reduction in COD can be achieved by use of advanced wastewater treatment employing activated carbon adsorption (Development Document, p. 129). This is reflected in the fact that the Agency has imposed only a 74 percent reduction in COD from the July 1, 1977 level to the July 1, 1983 level to be achieved by activated carbon adsorption technology.

Clearly, then, both the July 1, 1977 and July 1, 1983 treatment technologies and the Effluent Limitations Guidelines and Standards set thereby must be reevaluated in their application to the Painesville waste water situation.

Conclusion

For the foregoing reasons, the Painesville plant should be separately classified within the Emulsion Crumb Rubber Subcategory and the establishment of Effluent Limitations Guidelines under 40 C.F.R. § 428.22 and § 428.23 (and related Standards under 40 C.F.R. § 428.25 and § 428.26) should be revised to reflect the NBR products made, the processes employed, and the waste water characteristics existing at the Painesville plant. Such revision should be based upon a study of the Painesville plant by the Agency in

John E. Riley - 8 -

cooperation with Uniroyal. Until such study and revision can be made, however, the guidelines and standards referred to above should be withdrawn with respect to the Painesville plant. To do otherwise would arbitrarily impose upon Uniroyal a treatment technology and effluent goals which it has demonstrated cannot be met under conditions existing at Painesville today.

Sincerely yours,

Ira J. Krakower

IJK:kas

cc: G. William Frick, Esq.
General Counsel's Office
United States Environmental
Protection Agency

Patrick A. Mulloy, Esq.
Department of Justice

P A R T T W O : TITANIUM DIOXIDE (CHLORIDE PROCESS)

Relation to Effluent Guidelines

The new source standard for production of titanium dioxide by the chloride process is based on "the application of best available technology economically achievable" as specified for the 1983 effluent guideline under Section 304(b)(2). Development Document, App. 5920. The sole question raised in these proceedings is the scope of the regulation, and EPA has stated that this question will be resolved by an amendment to the regulations. This issue is discussed in connection with the effluent guidelines in the brief in No. 74-1741, at pages 8-9.

The Titanium Dioxide Industry

On both a worldwide and a United States basis, titanium dioxide is the most widely used white pigment in paints. Development Document, App. 5639. It is also used in paper, inks, fabrics, rubber, and floor coverings. Development Document, App. 5643. A special non-pigmentary grade of titanium dioxide is produced for use in the glass and ceramic industries. App. 4921.

Titanium dioxide is produced by two methods, the "sulfate" process and the "chloride" process. A major advantage of the sulfate process for manufacturing titanium dioxide has been its ability to use low-grade ores (ilmenite). The standard chloride process requires a higher purity ore (rutile), which is now and

has for the past few years been in very limited supply.

However, Petitioner DuPont has two plants (New Johnsonville and Edge Moor) which use a unique process combining ore beneficiation and the chloride process, where the ore used contains only 66 percent titanium dioxide.^{1/}

EPA HAS STATED THAT THE REGULATIONS WILL BE AMENDED TO CLARIFY THAT COMBINED ORE BENEFICIATION/CHLORIDE-PROCESS FACILITIES ARE NOT COVERED BY THE REGULATIONS.

A question respecting the applicability of the standards of performance to new facilities utilizing the DuPont process has arisen because the plants combine ore beneficiation with chloride-process production. EPA has advised Petitioners, including DuPont, that it will publish an amendment to the regulations excluding single-step ore beneficiation-type chloride process plants from the guidelines and standards. Accordingly, based on this assurance, Petitioners will not now extensively brief their objections to the new source standards for the production of titanium dioxide by the chloride process.

^{1/} DuPont is the only producer who can make titanium dioxide via the chloride process from ilmenite ore, and even it cannot use any ore with a titanium dioxide content of less than 50 percent, i.e., it could not use the Adirondack ore. (App. 2395.) Rutile ore is in such short supply worldwide that DuPont has said that it could use the world availability at its New Johnsonville plant alone. (App. 2395.)

UNITED STATES COURT OF APPEALS
FOR THE
SECOND CIRCUIT

No. 74-1691

UNIROYAL, INC.,
Petitioner,

v.

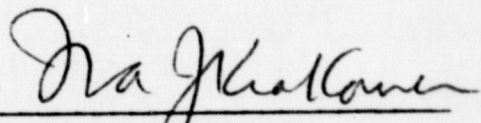
ENVIRONMENTAL PROTECTION AGENCY,
Respondent.

CERTIFICATE OF SERVICE

I certify that two (2) copies of BRIEF FOR PETITIONER,
dated October 21, 1974, have been served on respondent's
counsel

Patrick A. Mulloy, Esq.
Attorney, Department of Justice
Washington, D. C. 20530

by mailing the same, properly addressed as aforesaid, first
class postage prepaid, this 21st day of October, 1974.



Ira J. Krakower
1230 Avenue of the Americas
Rockefeller Center
New York, New York 10020
(212) 489-4538
Attorney for Petitioner